

Drawings submitted with the response to the Notice to File Missing Parts meet all formal requirements and have been approved.

Applicant has submitted an Information Disclosure Statement (IDS) by certificate of mailing dated January 30, 2002. The IDS lists documents considered in the parent and grandparent applications as well as art cited in a related international application. It is respectfully requested that the cited documents be expressly considered during the prosecution of this application, and that they be made of record therein and appear among the "References Cited" on any patent to issue therefrom. To that end, Applicant asks that the Examiner indicate that consideration by initialing the PTO-1449 accompanying the IDS and returning an initialed copy to Applicant. If consideration of the documents listed in the IDS at this stage of prosecution requires a petition and/or payment of any government fee, this request should be considered as the petition, and the Examiner is authorized to charge the fee to Deposit Account 500417.

A Terminal Disclaimer is being submitted concurrently herewith, in order to overcome the obviousness type double patenting rejections. However, this should not be construed as agreement or acquiescence by Applicant with respect to any of the statements made by the Examiner in those rejections or the propriety of those rejections. It is believed that the claims in this case are distinct from those in the earlier cases. Also, in view of the twenty-year term from earliest claimed filing date, there can be no extension of term resulting from issuance of a new patent from the present application. However, the Terminal Disclaimer clearly obviates both double patenting rejections, therefore, further debate on the merits of these rejections appears unnecessary. Withdrawal of the two double patenting rejections is requested.

The Examiner rejected claims 16-50 under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 5,166,951 to Schilling (hereinafter the '951 Patent) in combination with U.S. Patent No.

5,291,486 to Koyanagi (hereinafter the '486 Patent). The Examiner concedes that the communication system disclosed in the '951 Patent does not include a device or means for adding a header, as claimed. Instead, the Examiner points to the data multiplexing technique for use in a digital information storage system, disclosed in the '486 Patent, and concludes that addition of a header would have been obvious. Applicant respectfully traverses this rejection.

Although the scope varies somewhat, each of the independent claims (16, 27 and 38) requires individual spread-spectrum processing of the sub-data sequence channels with chip sequence signals, combining the resulting spread-spectrum channels into a multichannel spread-spectrum signal and concatenating a header to the multichannel spread-spectrum signal. It may be helpful to consider an example of the header processing, from Applicant's specification (although the example should not be viewed as limiting any claim). As disclosed in the present application, the header comprises a header-symbol-sequence signal. For example, the header-symbol-sequence signal is a predefined sequence of bits, which may be used for the purpose of synchronization. The header, or preamble, is generated by spread-spectrum processing of the header-symbol-sequence signal together with a chip-sequence signal. In the embodiment disclosed, the chip-sequence signal used for the header is common to all users. The '951 and '486 Patents do not fairly suggest spread-spectrum processing of the sub-data sequence channels with chip sequence signals, combining the resulting spread-spectrum channels into a multichannel spread-spectrum signal and concatenating a header to the multichannel spread-spectrum signal, as claimed.

In the '951 patent, data at a transmitter are demultiplexed into sub-data-sequence signals. Each sub-data-sequence signal is spread-spectrum processed into a spread-spectrum signal. The spread-spectrum signals are combined and sent over a common communications channel. As disclosed there, transmission over the common channel involves application of a generic-chip-code

signal to the group of spread-spectrum-processed signals. However, there is no addition of a header as claimed; and Applicants submit that the '486 Patent would not actually lead one skilled in the art to add a header in the manner claimed, to the transmission in the '951 system.

The present claims and the '951 Patent relate to spread-spectrum communication. The '486 Patent does not. The '486 Patent instead relates to timeshare-multiplexing of data for storage on an optical disc or other data-storing medium. As such, the '486 Patent only teaches adding a pack header to a group of data packets (Fig. 2) before storing the packets as a pack on the medium. The '486 Patent does not teach adding a header to any kind of wireless communication channel, let alone to a spread spectrum signal containing the group of spread-spectrum-processed signals developed in the transmitter system of the '951 Patent. It is submitted that with the '486 Patent in hand, the artisan would not be taught to make the combination or how to actually implement the combination proposed in the rejection. Hence, the two applied patents viewed together would not make the claimed invention obvious.

In the explanation of the rejection, it was alleged that the multiplexing system of the '486 Patent is in "the same field of endeavor" as the spread-spectrum communication system disclosed in the '951 Patent. This statement is specifically traversed. Multiplexing of data for recording purposes is not the same field of endeavor as processing for a spread-spectrum communication in a wireless system.

The application of '486 Patent is a digital storage system. The requirement placed upon this storage system is to store segments of multiple rate data streams generated in the same time period on digital storage media. In order to perform this operation efficiently, the individual segments of the multiple rate data streams are stored in the form of a "pack" with a pack header containing a time stamp. The pack contains a single data stream, albeit formed from a series of packets, as

shown in Fig. 2. Such an application or field of endeavor is completely unrelated to wireless communication and spread-spectrum processing. While the '486 Patent might lead an artisan to add a pack header to a series of packets of data in some arts closely related to data storage, the teaching of that patent would not suggest adding a header to a multichannel spread-spectrum signal containing spread-spectrum processed sub-data sequence channels, as in the claimed inventions.

Applicant further submits that the art provides no motivation to combine the header from the '486 Patent with the multichannel spread-spectrum signal from the '951 Patent. The Examiner alleged that the reason for the proposed combination was for "providing timing and controlling data to the receiver, thereby, enhancing the system with higher efficiency." However, it is not seen where either patent actually suggests that adding a header would achieve such an advantage.

The '951 Patent provides a complete solution to the communication problem, admittedly without the need for a header. The '486 Patent teaches adding a header to a pack of data recorded to a disk or the like so that "the multiplexing unit can be matched with the physical storing unit of the data medium" (column 1, lines 27-41). Clearly, neither applied patent suggests the motivation alleged in the rejection, and the Examiner has failed to provide evidence or explanation of how or why the alleged motivation would be apparent to a person of ordinary skill in the art.

Conclusory statements, drawn from 'thin air' as it were, are not enough to show that a reasonable motivation would have led a skilled artisan to combine the teachings, in the manner required to sustain the obviousness rejection. *See e.g. In re Lee*, docket No. 00-1158 (Fed. Cir. Jan. 18, 2002) (obvious determination vacated for lack of evidentiary support for conclusory statements regarding motivation to select and combine); citing *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or

that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references"). In the absence of an objective showing of a teaching in the art that would lead the artisan to make the combination, the combination would not have been obvious under the relevant legal standard.

With respect to claims 17-19, 28-30 and 39-41 and again with respect to claims 23, 24, 34, 35, 44 and 45, the Examiner took official notice that certain claimed features were "well known and expected in the art." The burden is on the Examiner to come forward with documentary evidence to support what is allegedly known in the art, particularly with regard to core factual issues, such as specific features of the claims. See *In re Zurko*, 258 F.3d 1379, 59 USPQ2d 1693 (Fed. Cir. 2001) (deficiencies of the cited references cannot be remedied by general allegations of "basic knowledge" or "common sense"). Taking of official notice that claim features are well known does not meet the burden of presenting evidence, to which Applicant can respond or upon which higher authority can review the case for purposes of appeal. If the features are so well known, the Examiner should cite and specifically apply at least one document on each point, otherwise the rejection utilizing "official notice" should be withdrawn.

Applicant submits that the obviousness rejection of claims 16-50 over the '951 and '486 Patents is improper and should be withdrawn. All of the pending claims patentably define over the applied art.

For reasons outlined above, it is believed that all claims pending in this application are patentable and that this application is in condition for allowance. Applicant therefore requests a favorable reconsideration of their case and a prompt issuance of a Notice of Allowability.

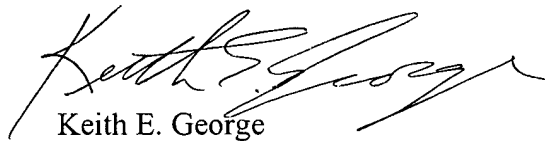
It is believed that this response addresses all issues raised in the December 17, 2001 Office Action. However, if any further issue should arise, which may be addressed in an interview or by

an Examiner's amendment, Applicant requests that the Examiner telephone his representative at the number shown below.

To the extent necessary, if any, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT, WILL & EMERY

A handwritten signature in black ink, appearing to read "Keith E. George", is written over the printed name.

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MARKED-UP COPIES

The following is a marked-up copy of claim 37, wherein deletions are bracketed and additions are underlined.

37. (Amended) The packet transmitter as set forth in claim 27, 31 or [3] 32, with said spread-spectrum means including spread-spectrum-memory means for outputting a respective chip-sequence signal of the plurality of chip-sequence signals in response to a respective data symbol in a sub-data-sequence signal of the plurality of sub-data-sequence signals, thereby generating the plurality of spread-spectrum channels, with each chip-sequence signal in the plurality of chip-sequence signals orthogonal with respect to other chip-sequence signals in the plurality of chip-sequence signals.